1649

11

PAGE: 1

RAW SEQUENCE LISTING

<110> APPLICANT: Sheen, Jen

PATENT APPLICATION US/08/989,881A

DATE: 08/06/1999

TIME: 15:22:49

Input Set: H989881A.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

```
<120> TITLE OF INVENTION: STRESS-PROTECTED TRANSGENIC PLANTS
             <130> FILE REFERENCE: 08472/716002
             <140> CURRENT APPLICATION NUMBER: US/08/989,881A
             <141> CURRENT FILING DATE: 1997-12-12
             <150> EARLIER APPLICATION NUMBER: 60/032,966
             <151> EARLIER FILING DATE: 1996-12-13
             <160> NUMBER OF SEQ ID NOS: 18
         8
             <170> SOFTWARE: FastSEQ for Windows Version 3.0
         9
        10
             <210> SEQ ID NO 1
        11
             <211> LENGTH: 1020
        12
             <212> TYPE: DNA
        13
             <213> ORGANISM: Arabidopsis thaliana
        14
             <220> FEATURE:
        15
             <221> NAME/KEY: variation
             <222> LOCATION: (1)...(1020)
        17
             <223> OTHER INFORMATION: N is any nucleotide.
             <400> SEQUENCE: 1
        18
        19
                                                                                            60
                   gttgtaaaac gacggncagt gaattgtaat acgactenet atagggcgna attggagete
        20
                   caccgcggtg gcggccgctc tagaactagt ggatcc atg gct aat caa act cag
                                                                                           114
        21
                   atc agc gac aag tac atc tta gga cga gaa ctc ggt cgc ggc gaa ttc
                                                                                           162
        22
                   gga atc acg tat ctt tgt aca gat aga gag act cgt gaa gct tta gct
                                                                                           210
                                                                                           258
        23
                   tgc aaa tca atc tcc aag aga aag ctc cga acc gcc gtc gat gtg gaa
                   gac gtc cgt cgt gaa gtc acg atc atg tca act tta ccg gaa cac cca
                                                                                           306
        24
        25
                   aac gtt gtg aaa ctt aaa gcg act tat gag gat aac gag acc gtg cat
                                                                                           354
                   ctt gtg atg gag ctt tgt gaa gga ggt gag ctt ttt ggt cgg att gtt
                                                                                           402
        26
        27
                   gca aga gga cat tat aca gag cgt gcg gcg gct acc gtc gcg aga acg
                                                                                           450
                   atc gcg gaa gtt gtg agg atg tgt cat gtc aat ggt gtt atg cat aga
                                                                                           498
        28
                   gat ttg aag cct gag aat ttc ttg ttt gct aac aag aag gag aat tct
                                                                                           546
        29
                   gca ctt aag gct att gat ttt ggt tta tct gtt ctc ttt aaa cct gga
                                                                                           594
        30
        31
                   gag agg ttt aca gag att gtt gga agt cct tat tat atg gct cca gaa
                                                                                           642
                   gtg ttg aag aga aat tat gga cca gag gtt gat gtg tgg agt gct gga
                                                                                           690
        32
        33
                   gtt atc ctc tac atc ttg ctt tgt ggt gtt cct ccg ttt tgg gca gag
                                                                                           738
                                                                                          786
        34
                   act gaa caa ggt gtg gct ctt gcc atc ttg agg gga gtt ctt gat ttt
        35
                   aag aga gat cct tgg tcg cag ata tca gag agc gca aag agc ctt gtg
                                                                                          834
        36
                   aag cag atg ttg gaa cet gat tea act aag egt ttg act get cag caa
                                                                                           882
                   gtt ctt gat cac cct tgg ata cag aat gca aag aaa aggatcaagc
                                                                                           928
        37
W-->
        38
                   ttatcgatac cgtcgacctc gagggggggc ccggtaccag ctttngttcc ctttagtgag
                                                                                          988
        39
                   ggttaatttc gagcttggcg taatcatgtc at
                                                                                          1020
        40
             <210> SEQ ID NO 2
             <211> LENGTH: 274
        41
        42
             <212> TYPE: PRT
        43
             <213> ORGANISM: Arabidopsis thaliana
        44
             <400> SEOUENCE: 2
```

1649

PAGE:	2	RAW SEQUENCE LISTING	DATE: 08/06/1999
		PATENT APPLICATION US/08/989.881A	TTME: 15:22:49

Input Set: H989881A.RAW

													•	rnpu	ic s	et:	пэоэооти	. RAW
45		Met	Ala	Asn	Gİn	Thr	Gln	Ile	Ser	Asp	Lys	Tyr	Ile	Leu	Gly	Arg	Glu	
46		1				5					10					15		
47		Leu	Gly	Arg	_	Glu	Phe	Gly	Ile		Tyr	Leu	Cys	Thr		Arg	Glu	
48		_,	_		20	_		_	_	25		_	_	_	30	_	_	
49		Thr	Arg		Ата	ьeu	Ата	Cys	_	ser	Ile	ser	ьуs	_	гуѕ	Leu	Arg	
50		mb w	71-	35	7 ~~	TZ a l	~1.,	7 000	40	7 ~~~	7 ~~	~1.,	170 T	45	т1.	Mot	Com	
51 52		1111	50	vai	ASD	vaı	Giu	55	vaı	Arg	Arg	Giu	60	1111	116	Mec	Set	
53		Thr		Pro	Glu	His	Pro		Val	Va1	Lys	Len		Δla	Thr	Tvr	Glu	
54		65	Lou	110	014		70	11011	• • • •	• • • • • • • • • • • • • • • • • • • •	_,,	75	_,,			-7-	80	
55			Asn	Glu	Thr	Val	_	Leu	Val	Met	Glu		Cys	Glu	Gly	Gly		
56		_				85					90		-		-	95		
57		Leu	Phe	Gly	Arg	Ile	Val	Ala	Arg	Gly	His	Tyr	Thr	Glu	Arg	Ala	Ala	
58					100					105					110			
59		Ala	Thr	Val	Ala	Arg	Thr	Ile	Ala	Glu	Val	Val	Arg	Met	Cys	His	Val	
60				115					120					125				
61		Asn	Gly	Val	Met	His	Arg	_	Leu	Lys	Pro	Glu		Phe	Leu	Phe	Ala	
62			130		_			135			_	_	140	_	_			
63			_	Lys	Glu	Asn		Ala	Leu	Lys	Ala		Asp	Phe	Gly	Leu		
64		145		Dh -	T	D	150	a 1	3	Db -	m1	155	- 1-	**- 7	~ 1	0	160	
65 66		vai	Leu	Pne	гуя	165	GIY	GIU	Arg	Pne	Thr 170	GIU	тте	vaı	GIY	175	PIO	
67		ጥኒታዮ	Туг	Met	Δla		Glu	17a]	T.611	T.ve	Arg	Δen	Туг	Glv	Dro		Val	
68		1 Y L	171	Mec	180	110	GIU	Val	пец	185	AL 9	ASII	- y -	GLY	190	Giu	Vai	
69		Asp	Val	Trp		Ala	Glv	Val	Ile		Tyr	Ile	Leu	Leu		Glv	Val	
70		E		195			1		200		-1-			205	-1-	1		
71		Pro	Pro	Phe	Trp	Ala	Glu	Thr		Gln	Gly	Val	Ala	Leu	Ala	Ile	Leu	
72			210		_			215			_		220					
73		Arg	Gly	Val	Leu	Asp	Phe	Lys	Arg	Asp	Pro	Trp	Ser	${\tt Gln}$	Ile	Ser	Glu	
74		225					230					235					240	
75		Ser	Ala	Lys	Ser		Val	Lys	Gln	Met	Leu	Glu	Pro	Asp	Ser		Lys	
76		_	_			245		-	_	_	250	_	_			255		
77		Arg	Leu	Thr		GIn	GIn	Val	Leu	_	His	Pro	Trp	Ile		Asn	Ala	
78 70		T	T		260					265					270			
79 80	<210>	Lys	-	τO 3														
81	<211>																	
82	<212>																	
83	<213>				rabio	iagof	s th	nalia	ına									
84	<400>					_												
85		-			ggta	aatao	et to	tgtt	gga									29
86	<210>																	
87	<211>	LENG	HT:	28														
88	<212>																	
89	<213>				rabio	lopsi	s th	nalia	ına									
90	<400>																	
91		-			gtcga	cttg	ga ac	ccat	gg									28
92	<210>																	
93 94	<211>																	
74	<212>	1175	יות : י	M														

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/989,881A PAGE: 3 DATE: 08/06/1999 TIME: 15:22:49

Input Set: H989881A.RAW

95		ORGANISM: Arabidopsis tha	aliana	
96	<400>	SEQUENCE: 5		
97		gcggatccat ggctaatcaa act	tcagatca gcg	33
98		SEQ ID NO 6		
99		LENGTH: 29		
100		TYPE: DNA		
101		ORGANISM: Arabidopsis tha	aliana	
102	<400>	SEQUENCE: 6		
103		gtcaaggcct catcagtgag aac	catgttc	29
104		SEQ ID NO 7		
105		LENGTH: 30		
106		TYPE: DNA		
107		ORGANISM: Arabidopsis tha	aliana	
108	<400>	SEQUENCE: 7		
109		gcggatccat ggagacgaag cca	aaacccta	30
110		SEQ ID NO 8		
111		LENGTH: 30		
112		TYPE: DNA		
113		ORGANISM: Arabidopsis tha	aliana	
114	<400>	SEQUENCE: 8		
115		gtcaaggcct tgcttgttca tcg	gacaatcc	30
116		SEQ ID NO 9		
117		LENGTH: 30		
118		TYPE: DNA		
119		ORGANISM: Arabidopsis tha	aliana	
120	<400>	SEQUENCE: 9		
121		catgccatgg ctccggcgac taa	attcaccg	30
122		SEQ ID NO 10		
123		LENGTH: 32		
124		TYPE: DNA		
125		ORGANISM: Arabidopsis tha	aliana	
126	<400>	SEQUENCE: 10		
127		gtcaaggcct attcttcaag aac	ccatttat cg	32
128		SEQ ID NO 11		
129		LENGTH: 30		
130		TYPE: DNA		
131		ORGANISM: Arabidopsis tha	aliana	
132	<400>	SEQUENCE: 11		
133		gcggatccat ggctcgagct ccg	ggtgacca	30
134		SEQ ID NO 12		
135		LENGTH: 31		
136		TYPE: DNA		
137		ORGANISM: Arabidopsis tha	allana	
138	<400>	SEQUENCE: 12		
139	010	gtcaaggcct attcttcaag aac	ccaactat g	31
140		SEQ ID NO 13		
141		LENGTH: 33		
142		TYPE: DNA	11	
143		ORGANISM: Arabidopsis tha	illana	
144	<400>	SEQUENCE: 13		



DATE: 08/06/1999 TIME: 15:22:49 RAW SEQUENCE LISTING PAGE:

PATENT APPLICATION US/08/989,881A

Input Set: H989881A.RAW

145		gcggatccat ggctaagtca gagctggtga aag	33
146	<210>	SEQ ID NO 14	
147	<211>	LENGTH: 31	
148	<212>	TYPE: DNA	
149	<213>	ORGANISM: Arabidopsis thaliana	
150	<400>	SEQUENCE: 14	
151		gtcaaggcct attctttagg aaccatgaat g	31
152	<210>	SEQ ID NO 15	
153	<211>	LENGTH: 33	
154	<212>	TYPE: DNA	
155	<213>	ORGANISM: Arabidopsis thaliana	
156	<400>	SEQUENCE: 15	
157		gcggatccat ggctaagtat gacgttgtca agg	33
158	<210>	SEQ ID NO 16	
159	<211>	LENGTH: 28	
160	<212>	TYPE: DNA	
161	<213>	ORGANISM: Arabidopsis thaliana	
162	<400>	SEQUENCE: 16	
163		gtcaaggcct attcttcaag taccacgg	28
164	<210>	SEQ ID NO 17	
165	<211>	LENGTH: 20	
166	<212>	TYPE: DNA	
167	<213>	ORGANISM: Hordeum vulgare	
168	<400>	SEQUENCE: 17	
169		tccaccgaga tgccgacgca	20
170	<210>	SEQ ID NO 18	
171	<211>	LENGTH: 26	
172	<212>	TYPE: DNA	
173	<213>	ORGANISM: Hordeum vulgare	
174	<400>	SEQUENCE: 18	
175		gttggaggcc atggtcgtct cacgat	26

PAGE: 5

VERIFICATION SUMMARY
PATENT APPLICATION US/08/989,881A

DATE: 08/06/1999

TIME: 15:22:49

Input Set: H989881A.RAW

Line ? Error/Warning Original Text

19 W "N" or "Xaa" used: Feature required gttgtaaac gacggncagt gaattgtaat acgactcn
38 W "N" or "Xaa" used: Feature required ttatcgatac cgtcgacctc gagggggggc ccggtacc